

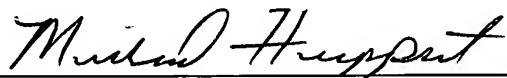
REMARKS

The present Preliminary Amendment is submitted to replace the title; and cancel original claims 1-30 and add new claims 31-59.

Also, the abstract has been amended in order to remove the reference numerals therein. The changes to the abstract are submitted in the form of a substitute abstract. A copy of the abstract with changes marked therein is attached.

Respectfully submitted,

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By 

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ABSTRACT

An antenna apparatus (~~100-116~~) includes a minute loop antenna (~~A3~~) and at least one antenna element (~~A1, A2~~). The minute loop antenna (~~A3~~) is provided to be electromagnetically close to a dielectric substrate (~~10~~) including a grounding conductor (~~11~~), has a predetermined number N of turns and a predetermined minute length, operates as a magnetic ideal dipole when a predetermined metal plate (~~30~~) is located closely to the antenna apparatus (~~100-116~~), and operates as a current antenna when the metal plate (~~30~~) is located apart from the antenna apparatus (~~100-116~~). The antenna element (~~A1, A2~~) is connected to the minute loop antenna (~~A3~~), and operates as a current antenna. In the antenna apparatus (~~100-116~~), one end of the antenna apparatus (~~100-116~~) is connected to a feeding point (~~Q~~), and another end of the antenna apparatus (~~100-116~~) is connected to the grounding conductor (~~11~~) of the dielectric substrate (~~10~~).

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